

Enter please
Slick change
2/21/2006

Atty. Dkt. No. 016778-0444

In the Claims:

1. (Currently Amended) A reception level measuring system in which a base station in a code division multiple access (CDMA) mobile communication system measures a reception level of a signal from a mobile station, said reception level measuring system comprising:

approximate-line estimating means for providing an approximate line by linearly approximating signal amplitudes of a demodulated data stream in I- and Q-channels from a reception signal, in a time interval which is set in accordance with an estimated Doppler frequency;

phase-rotation estimating means for estimating the an amount of phase rotation based on a gradient of said approximate line;

Doppler-frequency estimating means for estimating said estimated Doppler frequency based on the amount of phase rotation; and

reception signal power estimating means for estimating a reception signal power based on said approximate line.

2. (Currently Amended) A reception level measuring system according to Claim 1, further comprising:

data delaying means for delaying the demodulated data stream by a time necessary for the an approximate line estimating process by said approximate-line estimating means; and

noise-power estimating means for determining the a difference between said approximate line and the demodulated data stream delayed by said data delaying means as a noise component and for estimating noise-a noise power.

3. (Currently Amended) A reception level measuring system according to Claim 2, further comprising:

means for subtracting an-the estimated noise power estimated by said noise-power estimating means from the estimated reception signal power from said reception signal power estimating means, averaging the-the-an resultant values, and outputting the-an average as a reception level measured-value.

4. (Currently Amended) A reception level measuring system in which a base station in a code division multiple access (CDMA) mobile communication system measures a reception level of a signal from a mobile station, said reception level measuring system comprising:

approximate-curve estimating means for providing an approximate curve by nonlinearly approximating signal amplitudes of a demodulated data stream in I- and Q-channels from a reception signal;

phase-rotation estimating means for estimating the-an amount of phase rotation based on a differential coefficient of said approximate curve;

Doppler-frequency estimating means for estimating a estimated Doppler frequency based on the amount of phase rotation;

reception signal power estimating means for estimating a reception signal power based on said approximate curve;

data delaying means for delaying the demodulated data stream by a time necessary for the approximate-curve estimating process of said approximate-curve estimating means;

noise-power estimating means for determining that a noise component is the difference between the approximate curve and the demodulated data stream delayed by said data delaying means and for estimating a noise power; and

means for subtracting the estimated noise power estimated by said noise-power estimating means from the reception signal power from said reception signal power estimating means, averaging the-the-an resultant values, and outputting the-an average as a reception level measured-value.

5 6. (Original) A reception level measuring system according to Claim 5, wherein said approximate-curve estimating means approximates the signal amplitudes of the demodulated data stream by a curve represented by a polynomial whose order is set in accordance with the estimated Doppler frequency.